

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 74.82023/001	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/005415	International filing date (day/month/year) 23/12/2004	(Earliest) Priority Date (day/month/year) 31/12/2003
Applicant  SMARTMEMBRANE CORP		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

METHOD AND APPARATUS FOR SEPARATING AIR

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 5

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/005415

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D53/22 C01B21/04 C01B13/02 B01D63/02 B01D63/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D C01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 202 023 A (JOHNNY L. TRIMMER ET AL.) 13 April 1993 (1993-04-13)	1-48, 51
Y	column 2, line 45 - line 52; figure 6 column 7, line 29 - line 47 column 9, line 16 - column 16, line 19 column 20, line 18 - line 27; claims	1-51
P, Y	EP 1 442 783 A (SMARTMEMBRANE CORP) 4 August 2004 (2004-08-04) cited in the application the whole document	1-51
X	US 4 105 548 A (RICHARD ANSON BAKER ET AL.) 8 August 1978 (1978-08-08) figures	28, 31, 42, 51

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

10 March 2005

Date of mailing of the international search report

17/03/2005

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/005415

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5202023	A	13-04-1993	DE 69231648 D1	22-02-2001
			EP 0618839 A1	12-10-1994
			JP 7503889 T	27-04-1995
			WO 9312866 A1	08-07-1993
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			CA 2437539 A1	17-07-2004
			EP 1442783 A2	04-08-2004
			US 2004149127 A1	05-08-2004
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			CA 1096317 A1	24-02-1981
			DE 2807613 A1	24-08-1978
			FR 2381000 A1	15-09-1978
			GB 1587393 A	01-04-1981
			IL 54089 A	28-02-1982
			IT 1092784 B	12-07-1985
			JP 1620651 C	09-10-1991
			JP 2030732 B	09-07-1990
			JP 53103981 A	09-09-1978
			NL 7801984 A ,B,	24-08-1978
			US 4446024 A	01-05-1984